



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,039	09/13/2000	Hirokazu Yamada	44084-474	8219

7590 12/23/2003

McDermott Will & Emery
600 13th Street NW
Washington, DC 20005-3096

EXAMINER

LAMB, TWYLER MARIE

ART UNIT	PAPER NUMBER
----------	--------------

2622

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/661,039

Applicant(s)

YAMADA, HIROKAZU

Examiner

Twyler M. Lamb

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2622

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Takano et al. (Takano) (US 5,887,125).

With regard to claim 1, Takano discloses an image forming apparatus (Figure 1) comprising: a plurality of print heads arranged in a row (col 16, lines 7-23); first correcting means which correct image data on a line basis in a sub-scanning direction

Art Unit: 2622

based on the amount of relative inclination between the print heads (col 23, line 58 – col 24, line 38); and second correcting means which correct the image data corrected by the first correcting means on a unit basis smaller than one line (col 24, line 39 – col 25, line 22).

With regard to claim 2, Takano also discloses wherein the first correcting means perform the correction in an image memory and second correcting means perform the correction in a FIFO memory (col 17, lines 17-53).

With regard to claim 3, Takano also discloses wherein the first correcting means perform the correction in an image memory and second correcting means perform the correction in a print head portion (col 23, line 58 – col 24, line 38).

With regard to claim 4, Takano also discloses wherein the amount of inclination is detected as an integral multiple of a unit for correction in the correction performed by the second correcting means on a unit basis smaller than one line (col 23, line 58 – col 24, line 38).

With regard to claim 5, Takano discloses an image forming apparatus (Figure 1) comprising: a plurality of print heads arranged in a row (col 16, lines 7-23); a bit map memory (col 17, lines 17-53); a read address generator which sequentially generates read addresses from a leading address in the image data region of the bitmap memory (col 17, lines 17-53); a write address generator for generating, from the read addresses, write addresses by correcting relative inclination between the print heads on a line basis (col 17, lines 17-53); and a memory controller which writes image data to an image data

Art Unit: 2622

region of the bitmap memory, wherein the leading and rear end portions of the image data region provide respective blank regions, reads from the read addresses generated by the read address generator, image data stored in the image region and writes the image data at the write addresses generated by the write address generator (col 17, lines 17-53).

With regard to claim 6, Takano also discloses wherein the dimensions of the blank regions is equal to or larger than the maximum amount of inclination to be corrected (col 23, line 58 – col 24, line 38).

With regard to claim 7, Takano discloses an image forming apparatus (Figure 1) comprising: a bitmap memory having an image data region for storing image data and specified blank regions provided on leading and rear end portions of the image data region (col 17, lines 17-53); a read address generating unit for generating read addresses for image data based on correction data on relative inclination between the print heads (col 17, lines 17-53); and an output unit for reading the image data from the generated read addresses (col 17, lines 17-53).

With regard to claim 8, Takano discloses an image forming apparatus (Figure 1) comprising: a plurality of print heads arranged in a row (col 16, lines 7-23); a bit map memory (col 17, lines 17-53); a read address generator for consecutively generating read addresses for image data based on relative inclination between the print heads on the unit basis of one burst access (col 17, lines 17-53); and a memory controller for reading the image data from the bitmap memory at the read addresses generated by the read address generator (col 17, lines 17-53).

With regard to claim 9, Takano also discloses further comprising storing means for temporarily storing the read image data, the storing means having a capacity of at least one line of data, wherein the memory controller comprises a selecting unit for selectively outputting either of the image data read from the bitmap memory and the image data stored in the storing means based on the relative inclination between the print heads (col 17, lines 17-53).

With regard to claim 10, Takano also discloses further comprising storing means for temporarily storing the read image data, the storing means having a capacity of at least one line of data and storing, of the data read by a burst access from the addresses generated by the read address generating unit, data of the length of a specified unit for correction (col 17, lines 17-53).

With regard to claim 11, Takano discloses a data processing apparatus (Figure 1) comprising: a memory which stores image data (col 17, lines 17-53); first correcting means which correct image data on a line basis (col 23, line 58 – col 24, line 38); and second correcting means which correct the image data corrected by the first correcting means on a unit basis smaller than one line (col 24, line 39 – col 25, line 22).

With regard to claim 12, Takano also discloses wherein said first correcting means includes a read address generator which sequentially generates read addresses from a leading address in the image data region of a bitmap memory, a write address generator for generating, from the read addresses, write addresses by correcting relative inclination on a line basis and a memory controller which writes image data to an image data region of the bitmap memory, wherein the leading and rear end portions

Art Unit: 2622

of the image data region provide respective blank regions, reads from the read addresses generated by the read address generator, image data stored in the image region and writes the image data at the write addresses generated by the write address generator (col 17, lines 17-53).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Twyler Lamb whose telephone number is 703 - 308-8823. The examiner can normally be reached on M-TH (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 703-308-4712. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9314 for After Final communications.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

(703) 872-9314

(for informal or draft communications, such as proposed amendments to be discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

or hand-carried to:

Crystal Park Two
2121 Crystal Drive
Arlington, VA.
Sixth Floor (Receptionist)

Application/Control Number: 09/661,039

Art Unit: 2622

Page 7

Twyler Lamb

A handwritten signature in black ink, appearing to be 'Twyler Lamb', written in a cursive style.

December 15, 2003